

AMENDMENTS TO THE SPECIFICATION

Please amend the specification at the paragraphs indicated below such that the paragraphs of the specification at those indicated locations are as follows:

A) Page 1, the paragraph beginning at line 17 and continuing through line 25:

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An electrodeless fluorescent lamp introduced in the market by General Electric Corp. ("Genura" GENURA) is operated at a frequency of 2.65 MHZ and used for indoor general lighting. This lamp is a replacement for a R30 incandescent lamp and has 1,100 lumen light output at 23 W of total power. The life of the Genura GENURA lamp, 15,000 hrs, is much longer than that of the incandescent lamp. The drawback of the Genura GENURA lamp is the high initial cost, partially due to the need to prevent electromagnetic interference and partially due to the circuit cost operating at 2.65 MHZ. Both drawbacks could be diminished if the electrodeless fluorescent lamp was operated at a frequency as low as 100 kHz.

B) Page 5, the paragraph beginning at line 13 and carrying over through line 2 of the following page:

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Figure 2A shows a configuration where the top edge of metal tube 8 is positioned so as not to project outward from the end edge of ferrite core 7 (i.e., where the top edge of metal tube 8 is inside a hollow portion of ferrite core 7.) Figure 2B shows a configuration where the top edge of metal tube 8 is positioned so as to project outward from the end edge of ferrite core 7 by a distance "d". In the case where the top edge of metal tube 8 was positioned as shown in Figure 2A, the coil-ferrite combination inductance L_c was 387.4 μ H, the electrical resistance component was 0.602 Ω , and the quality factor, Q was 404.2. In the case where the top edge of metal tube 8 was positioned as shown in Figure 2B and $d = 5$ mm, the coil-ferrite combination inductance L_c was 384[[],]3 μ H, the electrical resistance component was 0.794 Ω , and the quality factor, Q was 303.8. As can be appreciated, when the top edge of metal tube 8 projects outward from the end edge of ferrite core 7, the coil-ferrite combination inductance decreases and the electrical resistance component increases. Therefore, the coil power loss during operation increases. Furthermore, metal tube 8 is undesirably heated to high temperatures by eddy currents generated through the magnetic fields

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en provided by the coil and core during lamp operation occurring in the outward projecting portion of metal tube 8 past the end edge of core 7.

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C) Page 10, the paragraph beginning at line 19 and continuing through line 26:

Thermal shield 12, shown in Figure 1A, is made from a nonmetallic material having a low thermal conductivity, and so thermally insulates region 13 from ferrite core 7 and ferrite plate or disk 11. Herein, the expression "thermally insulate" is defined to include the meaning of "restricted heat transmission". For the thermal shield 12, material offered under the mark "Xydar" XYDAR, for example, having a thermal conductivity of about 0.36 W/m•K is preferably used. The mark "Xydar" XYDAR is a registered trademark of Amoco Polymers, Inc. Materials used to form thermal shield 12 preferably have thermal conductivities of 0.4 W/m•K or less⁷.

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D) Page 22, the section headed ABSTRACT:

An electrodeless lamp includes an envelope (1) containing a fill of discharge gas, a magnetic core (7), an induction coil (6) wound around the magnetic core t(7), a driver circuit for supplying an electric current to the induction coil (6) to operate the electrodeless lamp, a socket (10) for receiving electrical power supplied to the electrodeless lamp, and a heat conduction means (8,9[[8,9]]) thermally coupled to the magnetic core (7) for conducting heat generated in the magnetic core (7) to the ambient atmosphere to dissipate heat therein, or coupled to the socket (10) for conducting heat generated in the magnetic core (7) to the socket to dissipate heat therethrough.